RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/727,145_

Source: _1 Fwd_

Date Processed by STIC: _9/22/06_

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RAW SEQUENCE LISTING   DATE: 09/22/2006
PATENT APPLICATION: US/10/727,145   TIME: 11:13:33

Input Set : F:\031065SeqListing.txt
Output Set: N:\CRF4\09222006\J727145.raw

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 3 <110> APPLICANT: Animal Technology Institute Taiwan
 4        Ching-Fu, Tu
 5        Chi-Kai, Yang
 6        Chich-Sheng, Lin
 7        Chon-Ho, Yen
 8        I-Chung, Chen
 9        Shinn-Chih, Wu
10        Yu-Ling, Sun
11        Ming-Shing, Liu
12        Ping-Cheng, Yang
14 <120> TITLE OF INVENTION: Expression Vector For Hirudin And Transformed Cells And
15        Transgenic Animals Containing Said Vector
17 <130> FILE REFERENCE: MBHB-03-1065
19 <140> CURRENT APPLICATION NUMBER: 10/727,145
C--> 20 <141> CURRENT FILING DATE: 2003-12-03
22 <150> PRIOR APPLICATION NUMBER: 10/053,641
23 <151> PRIOR FILING DATE: 2002-01-18
25 <160> NUMBER OF SEQ ID NOS: 21
27 <170> SOFTWARE: PatentIn version 3.3
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 104
31 <212> TYPE: DNA
32 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: Single-stranded DNA fragments Hi-AF designed from the hirudin
36        gene.
38 <400> SEQUENCE: 1
39 gatcctttat ggttgtttac actgactgca ctgaatccgg tcagaacctg tgcctgtgcg      60
41 aaggctctaa cgtttgcggc cagggcaaca aatgcatcct gggc                     104
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 107
46 <212> TYPE: DNA
47 <213> ORGANISM: Artificial Sequence
49 <220> FEATURE:
50 <223> OTHER INFORMATION: Single-stranded DNA fragments Hi-AR designed from the hirudin
51        gene.
53 <400> SEQUENCE: 2
54 ctctagagcc caggatgcat ttgttgccct ggccgcaaac gttagagcct tcgcacaggc      60
56 acaggttctg accggattca gtgcagtcag tgtaaacaac cataaag                  107
59 <210> SEQ ID NO: 3
60 <211> LENGTH: 111
61 <212> TYPE: DNA
62 <213> ORGANISM: Artificial Sequence
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 64 <220> FEATURE:
 65 <223> OTHER INFORMATION: Single-stranded DNA fragments Hi-BF designed from the hirudin
 66      gene.
 68 <400> SEQUENCE: 3
 69 tctagaggcg aaaaaaatca atgcgttact ggcgaaggta ctccgaaacc gcagtctcac        60
 71 aacgacggcg actttgaaga aatcccggaa gaatacctgc aataataggg c               111
 74 <210> SEQ ID NO: 4
 75 <211> LENGTH: 108
 76 <212> TYPE: DNA
 77 <213> ORGANISM: Artificial Sequence
 79 <220> FEATURE:
 80 <223> OTHER INFORMATION: Single-stranded DNA fragments Hi-BR designed from the hirudin
 81      gene.
 83 <400> SEQUENCE: 4
 84 ggccgcccta ttattgcagg tattcttccg ggatttcttc aaagtcgccg tcgttgtgag        60
 86 actgcggttt cggagtacct tcgccagtaa cgcattgatt tttttcgc                    108
 89 <210> SEQ ID NO: 5
 90 <211> LENGTH: 33
 91 <212> TYPE: DNA
 92 <213> ORGANISM: Artificial Sequence
 94 <220> FEATURE:
 95 <223> OTHER INFORMATION: Primer Hi-PCR-AF designed from the hirudin gene.
 97 <400> SEQUENCE: 5
 98 tcgggatcct ttatggttgt ttacactgac tgc                                    33
101 <210> SEQ ID NO: 6
102 <211> LENGTH: 31
103 <212> TYPE: DNA
104 <213> ORGANISM: Artificial Sequence
106 <220> FEATURE:
107 <223> OTHER INFORMATION: Primer Hi-PCR-AR designed from the hirudin gene.
109 <400> SEQUENCE: 6
110 gcctctagag cccaggatgc atttgttgcc c                                      31
113 <210> SEQ ID NO: 7
114 <211> LENGTH: 38
115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Primer Hi-PCR-BF designed from the hirudin gene.
121 <400> SEQUENCE: 7
122 ggctctagag gcgaaaaaaa tcaatgcgtt actggcga                               38
125 <210> SEQ ID NO: 8
126 <211> LENGTH: 32
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Primer Hi-PCR-BR designed from the hirudin gene.
133 <400> SEQUENCE: 8
134 catgcggccg ccctattatt gcaggtattc tt                                     32
137 <210> SEQ ID NO: 9
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138 <211> LENGTH: 45
139 <212> TYPE: DNA
140 <213> ORGANISM: Capra hircus
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144 <221> NAME/KEY: misc_feature
145 <223> OTHER INFORMATION: Signal sequence from a goat beta-casein.
147 <400> SEQUENCE: 9
148 atgaaggtcc tcatccttgc ctgtctggtg gctctggcca ttgca                                    45
151 <210> SEQ ID NO: 10
152 <211> LENGTH: 15
153 <212> TYPE: PRT
154 <213> ORGANISM: Capra hircus
157 <220> FEATURE:
158 <221> NAME/KEY: MISC_FEATURE
159 <223> OTHER INFORMATION: Signal sequence from a goat beta-casein.
161 <400> SEQUENCE: 10
163 Met Lys Val Leu Ile Leu Ala Cys Leu Val Ala Leu Ala Ile Ala
164 1               5                   10                  15
167 <210> SEQ ID NO: 11
168 <211> LENGTH: 34
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Primer Hir1st5' for the adding the signal sequence from a
goat
174         beta-casein to the 5'-terminal of the hirudin gene.
176 <400> SEQUENCE: 11
177 tggctctggc cattgcagtt gtttacaccg actg                                    34
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181 <211> LENGTH: 34
182 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Primer Hir2nd5' for the adding the signal sequence from a
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187         beta-casein to the 5'-terminal of the hirudin gene.
189 <400> SEQUENCE: 12
190 tcatccttgc ctgtctggtg gctctggcca ttgc                                    34
193 <210> SEQ ID NO: 13
194 <211> LENGTH: 34
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Primer Hir3rd5' for adding the signal sequence from a goat
200         beta-casein to the 5'-terminal of the hirudin gene.
202 <400> SEQUENCE: 13
203 tcgctcgaga tgaaggtcct catccttgcc tgtc                                    34
206 <210> SEQ ID NO: 14
207 <211> LENGTH: 31
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
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211 <220> FEATURE:
212 <223> OTHER INFORMATION: Primer Hir3'XhoI for adding the signal sequence from a goat
213       beta-casein to the 5'-terminal of the hirudin gene.
215 <400> SEQUENCE: 14
216 tcgctcgagt tattgcaggt attcttccgg g                                  31
219 <210> SEQ ID NO: 15
220 <211> LENGTH: 243
221 <212> TYPE: DNA
222 <213> ORGANISM: Hirudo medicinalis
225 <220> FEATURE:
226 <221> NAME/KEY: misc_feature
227 <223> OTHER INFORMATION: Sequence of hirudin gene from Genebank accession number of
228       M12693.
230 <400> SEQUENCE: 15
231 atgaaggtcc tcatccttgc ctgtctggtg gctctggcca ttgcagttgt ttacaccgac    60
233 tgcactgaat ccggtcagaa cctgtgcctg tgcgaaggct ctaacgtttg tggccagggc   120
235 aacaaatgca tcctgggctc tgacggcgaa aaaaatcaat gcgttactgg cgaaggtact   180
237 ccgaaaccgc agtctcacaa cgacggcgac tttgaagaaa tcccggaaga atacctgcaa   240
239 taa                                                                243
242 <210> SEQ ID NO: 16
243 <211> LENGTH: 215
244 <212> TYPE: DNA
245 <213> ORGANISM: Hirudo medicinalis
248 <220> FEATURE:
249 <221> NAME/KEY: misc_feature
250 <223> OTHER INFORMATION: Nucleotide sequence of the full-length DNA fragment of the
251       complete coding sequence of hirudin.
253 <400> SEQUENCE: 16
254 gatcctttat ggttgtttac actgactgca ctgaatccgg tcagaacctg tgcctgtgcg    60
256 aaggctctaa cgtttgcggc cagggcaaca aatgcatcct gggctctaga ggcgaaaaaa   120
258 atcaatgcgt tactggcgaa ggtactccga aaccgcagtc tcacaacgac ggcgactttg   180
260 aagaaatccc ggaagaatac ctgcaataat agggc                             215
263 <210> SEQ ID NO: 17
264 <211> LENGTH: 67
265 <212> TYPE: PRT
266 <213> ORGANISM: Hirudo medicinalis
269 <220> FEATURE:
270 <221> NAME/KEY: MISC_FEATURE
271 <223> OTHER INFORMATION: Amino acid sequence of the full-length DNA fragment of the
272       complete coding sequence of hirudin.
274 <400> SEQUENCE: 17
276 Met Val Val Tyr Thr Asp Cys Thr Glu Ser Gly Gln Asn Leu Cys Leu
277 1               5                   10                  15
280 Cys Glu Gly Ser Asn Asn Val Cys Gly Gln Gly Asn Lys Cys Ile Leu
281             20                  25                  30
284 Gly Ser Arg Gly Glu Lys Asn Gln Cys Val Thr Gly Glu Gly Thr Pro
285         35                  40                  45
288 Lys Pro Gln Ser His Asn Asp Gly Asp Phe Glu Glu Ile Pro Glu Glu
289     50                  55                  60
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292 Tyr Leu Gln
293 65
296 <210> SEQ ID NO: 18
297 <211> LENGTH: 24
298 <212> TYPE: DNA
299 <213> ORGANISM: Artificial Sequence
301 <220> FEATURE:
302 <223> OTHER INFORMATION: Primer palphaLA-forward for transgene screened by PCR.
304 <400> SEQUENCE: 18
305 gcttcctaga accaacacta ccag                                         24
308 <210> SEQ ID NO: 19
309 <211> LENGTH: 21
310 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Primer palphaLA-Reverse for transgene screened by PCR.
316 <400> SEQUENCE: 19
317 gtcgccgtcg ttgtgagact g                                           21
320 <210> SEQ ID NO: 20
321 <211> LENGTH: 27
322 <212> TYPE: DNA
323 <213> ORGANISM: Artificial Sequence
325 <220> FEATURE:
326 <223> OTHER INFORMATION: Primer pBC1-Forward for transgene screened by PCR.
328 <400> SEQUENCE: 20
329 gattgacaag taatacgctg tttcctc                                      27
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333 <211> LENGTH: 26
334 <212> TYPE: DNA
335 <213> ORGANISM: Artificial Sequence
337 <220> FEATURE:
338 <223> OTHER INFORMATION: Primer pBC1-Reverse for transgene screened by PCR.
340 <400> SEQUENCE: 21
341 catcagaagt taaacagcac agttag                                       26
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VERIFICATION SUMMARY   DATE: 09/22/2006
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L:20 M:271 C: Current Filing Date differs, Replaced Current Filing Date